

WHAT IS CLAIMED IS:

1. A thermoplastic polyamide composition having
5 enhanced surface adhesion properties, comprising: the
reaction product of a silane coupling compound with a
blend of a polyamide with at least one other
thermoplastic or elastomeric polymer as toughener.

2. The polyamide composition of Claim 1 wherein
10 the composition comprises: (a) from about 5 to about 30
weight percent of a free-flowing toughener comprising
from about 20 weight percent to about 95 weight percent
polyvinyl butyral; (b) complementally, 95 to 25 weight
percent polyamide that is melt processible below about
15 320°C and a number average molecular weight of at least
5,000; (c) a coupling agent; and (d) optionally, filler
in an amount of up to about 45 weight percent.

3. The composition of Claim 2 wherein the
20 toughener comprises one or more polymers having
anhydride functionality and one or more polymers
having carboxylic acid functionality.

4. The composition of Claim 2 wherein the
25 toughener further comprises a non-reactive polymer
selected from the group consisting of polyethylene,
polypropylene, polyvinylchloride, nylon, olefinic
copolymers, and mixtures thereof.

30 5. The composition of Claim 3 wherein the
composition comprises a filler in an amount of from
about 1 wt% to about 45 wt%, based on the total weight
of the composition.

6. The composition of Claim 5 wherein the filler is glass filler is present in amount of from about 1 wt% to about 45 wt%.

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7. The composition of Claim 1 wherein the coupling agent is an aminosilane compound and is included in an amount of from about 0.1 to about 1 wt%.

10 8. The composition of Claim 7 wherein the polyamide is selected from the group consisting of: Nylon 6; Nylon 66; Nylon 69; Nylon 610; and Nylon 612; Nylon 11; Nylon 12; Nylon 12, 12; and copolymers of epsilon-caprolactam with hexamethylenediamine and
15 adipic acid.

9. An article prepared from the composition of Claim 1.

20 10. The article of Claim 9 wherein the article is a laminate formed from at least one PVB sheet and at least one adjacent polyamide sheet obtained from the composition of Claim 1, wherein the compressive shear strength of the laminate is at least 950.

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11. The laminate of Claim 10 wherein the laminate comprises a polyamide/polymer/polyamide laminate structure, wherein the polymer is selected from the group consisting of PVB, polyurethane,
30 polyvinylchloride, polycarbonate, polyacrylate, or other polyamides.

12. The laminate of Claim 11 wherein the laminate has sound damping properties.

13. An article comprising a laminate of Claim 12.

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14. The article of Claim 10 wherein the article is: a boat; a car; a train; an airplane; a roof; a wall; a building; a tool.

10 15. The article of Claim 9 wherein the article is a laminate comprising at least one layer of a thermoplastic elastomer laminated to the polyamide composition.

15 16. The article of Claim 15 wherein the article is a button or switch on: electronic equipment or an electronic device, a stereo, a compact disc player, a telephone, a television, a remote control, a computer, a keypad, or a touch-screen.

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17. A laminate article comprising a laminate structure of polyamide/PVB/polyamide wherein the polyamide is a thermoplastic polyamide composition comprising: (a) from about 5 to about 30 weight percent of a free-flowing toughener comprising from about 20
25 weight percent to about 95 weight percent polyvinyl butyral; (b) complementally, 95 to 25 weight percent polyamide that is melt processible below about 320°C and a number average molecular weight of at least
30 5,000; (c) optionally a coupling agent in an amount of up to about 1 wt%; and (d) optionally, a filler in an amount of up to about 45 weight percent.

18. An article comprising a laminate of Claim 17.

19. The article of Claim 18 wherein the article
5 is: a boat; a car; a train; an airplane; a roof; a
wall; a building; a wall; a ceiling; a floor; a tool;
an appliance.

20. The article of Claim 9 wherein the article is
10 formed by an injection molding or a press molding
process.

21. A process for increasing the adhesion of a
polyamide composition comprising the step of including
a silane coupling agent.

15 22. The process of Claim 21 wherein the coupling
agent is applied to the surface of the polyamide
composition.

23. The process of Claim 22 wherein the coupling
agent is applied as an aqueous solution at a pH of less
20 than 7.